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(54) Title: POLYNUCLEOTIDE SEQUENCING

(57) Abstract: A method for sequencing polynucleotides involves sequential addition of detectably labelled bases. A labelled base is incorporated by a polymerase onto a nascent strand, and, after detection, the polymerase is induced to replace the terminal labelled base with a corresponding unlabelled base, thereby permitting further sequencing to occur. The exonuclease activity of many polymerase enzymes is used, to remove the terminal base.

INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER IPC 7 C12Q1/68							
	International Patent Classification (IPC) or to both national classification	on and IPC					
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B. FIELDS	Cumentation searched iclassification system followed by classification	symbols)					
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Electronic da	ata base consulted during the international search (name of data base	and, where practical, search terms used)					
EPO-Int	ternal, WPI Data, PAJ, BIOSIS, CHEM /	ABS Data, MEDLINE, EMBA	SE				
C. DOCUME	ENTS CONSIDERED TO BE RELEVANT						
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Х	WO 93 21340 A (MEDICAL RES COUNCIL ;BRENNER SYDNEY (GB); ROSENTHAL AI (GB)) 28 October 1993 (1993-10-28 page 9, line 5 -page 10, line 32; 1-11	1-8					
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Further documents are listed in the continuation of box C. X Patent family members are listed in annex.							
A docum consi *E* earlier filing *L* docum which citatic *O* docum other	ent defining the general state of the art which is not dered to be of particular relevance document but published on or after the international date ent which may throw doubts on priority claim(s) or is cited to establish the publication date of another on or other special reason (as specified) went referring to an oral disclosure, use, exhibition or means	The later document published after the international filing date or pnority date and not in conflict with the application but clied to understand the principle or theory underlying the invention X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. &* document member of the same patent family					
	actual completion of the international search	Date of mailing of the international sea	arch report				
20 April 2001		27/04/2001					
Name and	mailing address of the ISA	Authorized officer					
	European Patent Office, P.B. 5818 Patentiaan 2 NL - 2280 HV Rijswijk Tel. (-31-70) 340-2040, Tx. 31 651 epo nl. Fax: (+31-70) 340-3016	Gabriels, J					

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